

Simple leads to complex solutions

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DESCRIPTION

A 76-year-old woman on warfarin for atrial fibrillation presented for routine pacing check 6 weeks after implantation of a dual-chamber device. She felt weak and generally unwell. The atrial lead was not sensing or pacing at high outputs. A chest X-ray showed the lead had perforated the atrial wall (figure 1). Echocardiography showed no pericardial effusion. International normalised ratio was 2.4.

In light of these findings, urgent lead revision was planned in a centre with cardiothoracic facilities due to the increased risk of pericardial effusion and tamponade.

Although pacemaker malfunction can be complex, simple non-specialist investigations can elucidate causes and majorly impact management.

Learning points

- ▶ Simple, systematic investigation of unwell patients (with cardiac devices) before specialist input can majorly inform and impact management.
- ▶ Delayed lead perforation is defined as lead perforation more than 30 days after implantation and has a reported incidence of 0.8%.¹
- ▶ Although many cases of lead perforation may be asymptomatic,¹ prompt recognition (facilitated by simple investigation) may prevent resultant pericardial effusion, tamponade and fistulae.¹

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCE

- 1 Khoueiry G, Lakhani M, Abi Rafeh N, *et al*. Right coronary artery fistula as a result of delayed right atrial perforation by a passive fixation lead. *Circ Arrhythm Electrophysiol* 2012;5:e46–7.

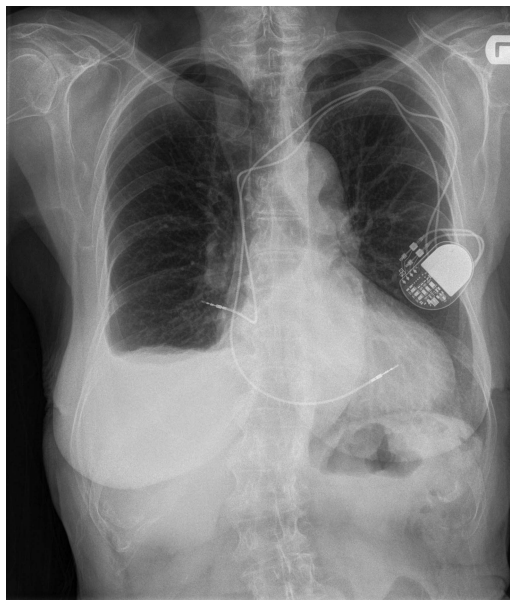


Figure 1 Chest radiograph 6 weeks after device implantation showing the atrial lead has perforated the atrial wall.



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